From: Ken Nielson
To: Dan Beistel
Date: 4/23/2003 5:21 PM
Subject: RE: NORTH AND SOUTH

Dan,
I attempted to return your call, but I must have copied the cell phone number incorrectly. So, here is the update.

I took the revised sheet that you sent and changed low, mid, and high flow values in the K-factor work sheet. Then implemented the updated gain and bias in the CAMS panels. (I made the assumption that the f-factor you mentioned in your e-mail meant flow). There were no changes to the SW. The SE changed from bias=1.446 to 1.458 and gain from .71 to .56. If there is an error or problem to what has been done, please let me know as soon as possible as we will be doing more overfire air testing next week.
Thanks,
Ken Nielson

>>> Dan Beistel <dbeistel@airmonitor.com> 04/09/03 03:43PM >>>
No it won't affect the k-Factor you calc. But you may won't to change the size in the traverse sheets I sent.

-----Original Message-----
From: Ken Nielson [mailto:KENNETH-N@ipsc.com]
Sent: Tuesday, April 08, 2003 8:24 PM
To: dbeistel@airmonitor.com
Subject: Re: NORTH AND SOUTH

Dan,
North side is 120"w X 77"h. South side is 120"w X 71"h.
Let me know if this affects the information you previously sent. Also, we still have that probe. As yet, we haven't seen any shipping labels that I am aware of.
Thanks,
Ken Nielson
Intermountain Power
(435)864-6437

>>> Dan Beistel <dbeistel@airmonitor.com> 04/08/03 04:56PM >>>
Ken can you tell me the dimensions of the North and south ducts I think
I
got them reversed.

Dan Beistel
Field Service Rep.
dbeistel@airmonitor.com
http://www.airmonitor.com
919-844-3100

From: Dan Beistel <dbeistel@airmonitor.com>
To: Ken Nielson <KENNETH-N@ipsc.com>
Date: 4/9/2003 3:45 PM
Subject: RE: NORTH AND SOUTH

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From: Ken Nielson [mailto:KENNETH-N@ipsc.com]
Sent: Tuesday, April 08, 2003 8:24 PM
To: dbeistel@airmonitor.com
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919-844-3100

From: <fpalacios@bbpwr.com>
To: <KENNETH-N@ipsc.com>
Date: 1/24/2003 5:13 AM
Subject: Re: OFA Controls - Intermoutain Power

Ken:
We will send you next week a drawing showing the location of all the instrumentation including Air Monitor probes and CAMS cabinets, damper drives and junction box. Let us know if you agree with the locations. I am expecting any time drawings from Jordan, with wiring information for drives and junction boxes. Your request for schedule I have passed along to Chris Simmons for action.

"Ken Nielson" <KENNETH-N@ipsc.com> 01/23/2003 04:19 PM

To: <fpalacios@bbpwr.com>
cc:
Subject: OFA Controls - Intermoutain Power

Francisco,

As a follow-up to the IPSC/BPI conference call last week, I need the following information:
1) Drawings showing the location of each piece of instrumentation, the jordan drives, and the junction box cabinets for the OFA system. I have not found this information on the project drawings that I have. If we have received these drawings, just e-mail back the drawing numbers.

2) Drawing(s) of the junction box/cabinets including terminal block and other internal components.

3) A detailed installation schedule for the OFA equipment. I am particularly interested in BPI schedule dates for the completion of installation of instruments, drives, and cabinets so I can schedule the cable pulls. Will the cabinets be installed prior to the outage?

Thank you,

Ken Nielson

Kenneth M. Nielson, P.E.
Lead Engineer, Technical Services
Intermountain Power
Delta, UT 84624
(435) 864-6437
kenneth-n@ipsc.com

From: Ken Nielson
To: Craig Mullen
Date: 1/26/2004 5:11 PM
Subject: Re: OFA Installation

Craig,
Thank you for this additional information. It is very helpful. I should have a scope package and drawings to Dave in the next day or two and this work can proceed as material arrives and coordination of construction schedules permit.

As was done on Unit 1 (as you indicate below), IPSC will provide the majority of the electrical cabling for Unit 2 OFA electrical installation. GSL will complete installation of cabling, new conduit, and new wireways, and mount/secure the CAMS panels. And, as done on Unit 1, GSL will provide materials required for new conduit runs, wireways, grounding, and miscellaneous materials and equipment necessary for installation. The primary marshalling cabinets and CAMS panels are being provided to IPSC by Babcock/TEI as part of the OFA materials and will be available to GSL by IPSC as early they are available and needed. TEI will complete the instrument tubing that was sub-contracted last year on Unit 1 to Peterson Site Service. TEI will also locate and secure the primary marshalling cabinets to be placed on the 9th level.

If there are any questions, do not hesitate to contact me. Thank you again for your efforts on this project,
Sincerely,

Ken Nielson

Kenneth M. Nielson, P.E.
Lead Engineer, Technical Services
Intermountain Power
Delta, UT 84624
Phone: (435) 864-6437
Fax: (435)864-0737
kenneth-n@ipsc.com

>>> "Craig Mullen" <cmullen@gslelectric.com> 1/26/2004 4:30:58 PM >>>

Kenneth:

In accordance with your request, we submit the following approximate cost of our 2003 Unit #1 Over Fire-Air project #293-D.

Labor: $36,000.00
GSL Supplied Material $8,000.00
ISPC provided electrical cabling
GSL Owned Equipment $3,500.00
Peterson Site Service (Sub-contractor to GSL Electric) $20,000.00

TOTAL AMOUNT: $67,500.00

If you have any questions, please contact me.

Thank You,

Craig Mullen

From: <fpalacios@bbpwr.com>
To: <KENNETH-N@ipsc.com>
CC: <lboucher@bbpwr.com>, <csimmons@bbpwr.com>, <ddorman@bbpwr.com>
Date: 2/6/2003 1:54 PM
Subject: Re: OFA Project - Intermountain Power

Ken:

I have partial answers to your questions:

1) I am still expecting a internal layout of the junction boxes that contain the amplifiers (2, one on each side). However I am forwarding to you an e-mail with drawings and service manuals that I received from Jordan including a dimensional drawing of the boxes. Only Jordan amplifier equipment resides in these boxes

2) We are still not done with the location drawing. Hope to have drafting finish it tomorrow. However, we are locating these boxes half way in front of the overfire air cross over duct on each side, about 5' above grating at elevation 4803'-5" and on column line 105. (see drawing 100210-7239810 as reference). We intend to locate the Air Monitor CAMS equipment at the same elevation, very near to the location of the probes.

3) The drives are SM-5220- N- 1-30/600-90-D007-F001 and SM-5120-N-1-29/300-90-D001-F001. That is, without internal amplifiers but with one potentiometer. The drives have only the internal limit switches and torque switches necessary to stop the motor. No other limit switches are provided.

4) Wiring drawings, sent attached to a separate mailing, show the external amplifiers located in the boxes (six in each box) wired to the drives and this will give you all the necessary information. The potentiometer in the drive is powered from the AD-8230 amplifier and evidently serves both the positioning circuit as well as the 4-20 mA transmitter to provide the external position signal. The drawing shows a maximum of 800 ohms load. The transmitter is powered by the loop (24VDC). Not the AD-8230 amplifier.

5) Answered in 4 above and attached wiring drawings.

6) There should be no problems with the slightly different duct sizes created by existing interferances. To compensate for any observable pressure drop differences is the reason for the balancing dampers. These dampers should not be moved again after commissioning or the their compensating positions should be recorded to be repositioned if moved.

7) There are no spare parts included in the contract. However I have requested a list of recommended spare parts from Air Monitor and Jordan.

As soon I receive a formal package from Jordan I will send it to you.

Please, let me know if you have any further questions.

"Ken Nielson"
<KENNETH-N@ipsc.com>
02/04/2003
07:37 PM

To: <fpalacios@bbpwr.com>
cc:
Subject: OFA Project - Intermountain Power

Francisco,

Thank you for the drawing package sent last week. It has been most helpful. In trying to tie up loose ends, there are a few questions still remaining. I have tried to provide an inclusive list below.

1) We still need a detailed layout drawing of the common junction boxes/cabinets in order to specify terminal block points for wiring coming to and from the combustion control system and the OFA system.

2) A review of the OFA construction drawings last week did not show the location of these junction boxes on the 9th floor. We need this in order to finish routing specifications for power and instrumentation wiring. Please send a drawing showing this or a reference to a drawing that we may have already received.

3) The drives specified by BPI for the dampers were models SM-5120 and SM-5220. Will these be the models SM-5120N and SM-5220N or SM-5120D and SM-5220D? Towards this same end, please provide a list of all the options specified for the drives. We also need drawings showing how the drives are to be wired to and from the JBXs.

4) Position feedback from the drives to the combustion control system (CCS) was required as were remotely located drive amplifiers. Will the drives include two (2) separate VRs and 4-20mA transmitters (one set for CCS and one set for the drive amplifiers) or will it be possible to use the same signal for both the CCS and drive amplifier? (If one signal is planned, we estimate that it must be capable of handling a minimum impedance of 500 ohms.)

5) Which amplifier will be provided for the drives? Drawings of how these are to be wired are also needed.

6) In reviewing the drawings that show the location of the Air Monitor CAMS system, the boiler front and back duct sizes are different. Will this create any problems from with calibration of the CAMS system or bias settings on the secondary air system? (James Nelson said that BPI had made a point of saying that 64 sq.ft. was the minimum allowable cross-sectional area on the feeder ducts, hence we wondered if the difference is significant from either a performance or tuning perspective.)

7) A question of spare parts has come up. For which OFA instrument and

control components will spares be provided and in what quantities? Also, please provide a complete list or bill of materials of all instrument and controls equipment and replaceable components with a recommended level of spares for each.

Please contact me if you have questions or concerns with this request. As it will be important to get this information as soon as possible, I will try to contact you by phone tomorrow.
Thanks,

Kenneth M. Nielson, P.E.
Lead Engineer, Technical Services
Intermountain Power
Delta, UT 84624
(435) 864-6437
kenneth-n@ipsc.com

From: Ken Nielson
To: Phil Hailes
Date: 2/18/2003 8:20 AM
Subject: Re: Over Fire Air, Present Status

Phil,
Thank you for the update. One question came to mind when you mentioned the 4th floor being caution taped due to the overhead work on the 8th & 9th floors. We will have crews doing the feeder rebuilds on the 4th level and the windbox damper bearing replacement on the 5th through 8th levels. Do we need to have any special precautions taken to allow these to occur simultaneous to the OFA work? I talked to Lloyd Leavitt, who is coordinating the tagging for the outage, and he thought we ought to bring it up in the next outage meeting to get some feedback on this and, if for no other reason, to make the supervisors aware.

>>> Phil Hailes 02/17/03 03:53PM >>>
The attached is a general status summary of the over fire air project for Unit 1. It's my attempt to keep everyone informed, without giving all of the details.

From: Ken Nielson
To: Craig Mullen
Date: 1/23/2004 8:11 AM
Subject: Re: Over-fire Air Nema 12 Raceway

Craig,
Thank you for this information. Before we go ahead, could you also send me the breakdown on the costs (materials, labor, cost of sections from Mallory, etc.). This helps me to know which pocket, internal to the project, that I need to allocate budget monies from; and, it will help with some budget planning and tracking I need to do as well. Additionally, I need an estimate from either you or Dave on the balance of OFA the work with a similar breakdown. Dave is familiar with what was done last year and I will get him a drawing and work scope, but it will be very similar to last year.

Thanks,
Ken

Kenneth M. Nielson, P.E.
Lead Engineer, Technical Services
Intermountain Power
Delta, UT 84624
Phone: (435) 864-6437
Fax: (435)864-0737
kenneth-n@ipsc.com

>>> "Craig Mullen" <cmullen@gslelectric.com> 1/22/2004 4:36:28 PM >>>
Kenneth:

In accordance with your request and our walk through and discussion, we submit the following scope of work and pricing for your review.

1. Install 8" x 8" Nema 12 Hoffman wireway, three (3) locations on level 8 & 9 at the Over-fire Air / boiler areas. GSL will adequately support and tie these sections of wireway between Unit 2 cable trays.
2. GSL will have Mallory Engineering Company custom make three (3) transitional sections to fit between the column and the toe kick area. This transitional pieces will reduce from 8" to 5" and then back to 8" at the column areas.
3. This price includes all labor, material & equipment to complete this project in a timely manner.

TOTAL PRICE: $24,180.00

Thank You,

Craig Mullen

From: Ken Nielson
To: fpalacios@bbpwr.com
Date: 3/3/2003 6:33 PM
Subject: Re: Revised panel layout drawing for Intermountain Power

Francisco,
Thank you for these drawings. Do you know what the projected delvery date is for these cabinets?
Thanks,

Ken Nielson
Intermountain Power

>>> <fpalacios@bbpwr.com> 03/03/03 09:29AM >>>
Ken: I just received these drawings from Jordan. Hard copies to follow later. Please let me know if you have any comments.
----- Forwarded by Francisco Palacios/Riley/US on 03/03/2003 11:25 AM -----

"Gregory Stark" <GStark@Jordancontrols.com> 03/03/2003 10:10 AM
To: <fpalacios@bbpwr.com>
cc: "Canner Associates Inc' 'Joel Casaubon ('Joel Casaubon, Canner Associates Inc')" <joel@canner.com>
Subject: Revised panel layout drawing for Intermountain Power

From: Greg Stark, Applications Engineer, Jordan Controls Inc
Sent: Monday, March 03, 2003
To: Babcock Borsig Power Francisco Palacios (fpalacios@bbpwr.com)
Subject: Revised panel layout drawing for Intermountain Power
Cc: Babcock Borsig Power Francisco Palacios (fpalacios@bbpwr.com)

Francisco:

Attached please find the revised panel layout drawings for Intermountain Power.

I will have hard copies sent this week.

Please feel free to call with any questions or if you require additional assistance.

Regards, Greg Stark

Phone: 414-461-9200 ext. 260
Fax: 414-461-1024
E-mail: Gstark@jordancontrols.com
(See attached file: D04214801.dwg)(See attached file: c04214301.dwg)

****
This email and any files transmitted with it are confidential and

From: Garry Christensen
To: Ken Nielson
Date: 1/20/2003 5:42 AM
Subject: Re: U1 Pre and Post outage testing.

We are looking to get O2 - two analyzers, CO - two analyzers, CO2 - two analyzers, and NOx - 2 analyzers with a data acquisition to gather the data. We want to get the averages on each duct at the economizer. We are checking on someone coming out with the equipment to set up the equipment and test. As far as I know, we have not decided which way to go (rental or rental with a guy). We need to test before Unit 2 outage.

>>> Ken Nielson 01/17/03 03:07PM >>>
Garry,

Just a couple of questions on the testing before and after the outage on U1.

1) What specific parameters do you want to test for?
2) What equipment and support personnel do you think we'll need to do that testing. ?
3) Have you had any success in getting any of these arranged?
4) Do you have test dates or a testing schedule identified
5) Are there any areas that you want me to help with in arranging the testing?

Jon Morrow of B&V left a voice mail indicating that they might have some testing service capability. I was going to call him Monday (to see what those services might entail and get some idea of cost) if you want to join me in a conf. call to him unless you don't want to go that route. Let me know.

Thanks
Ken N.